Content

Content
Server

125

Network

130

Gateway

Content
Transformer

140

110

135

138

139

Browser

User Device

100

Figure 1

215   215   215

| Link | Link | Link | Link | Link |

News Site.com

Other Stories
- Subheadline
- Subheadline
- Subheadline
- Subheadline

Earthquake Rocks City

Sports
- Baseball
- Football

_215_

Full Story

215   **Weather**
- Local
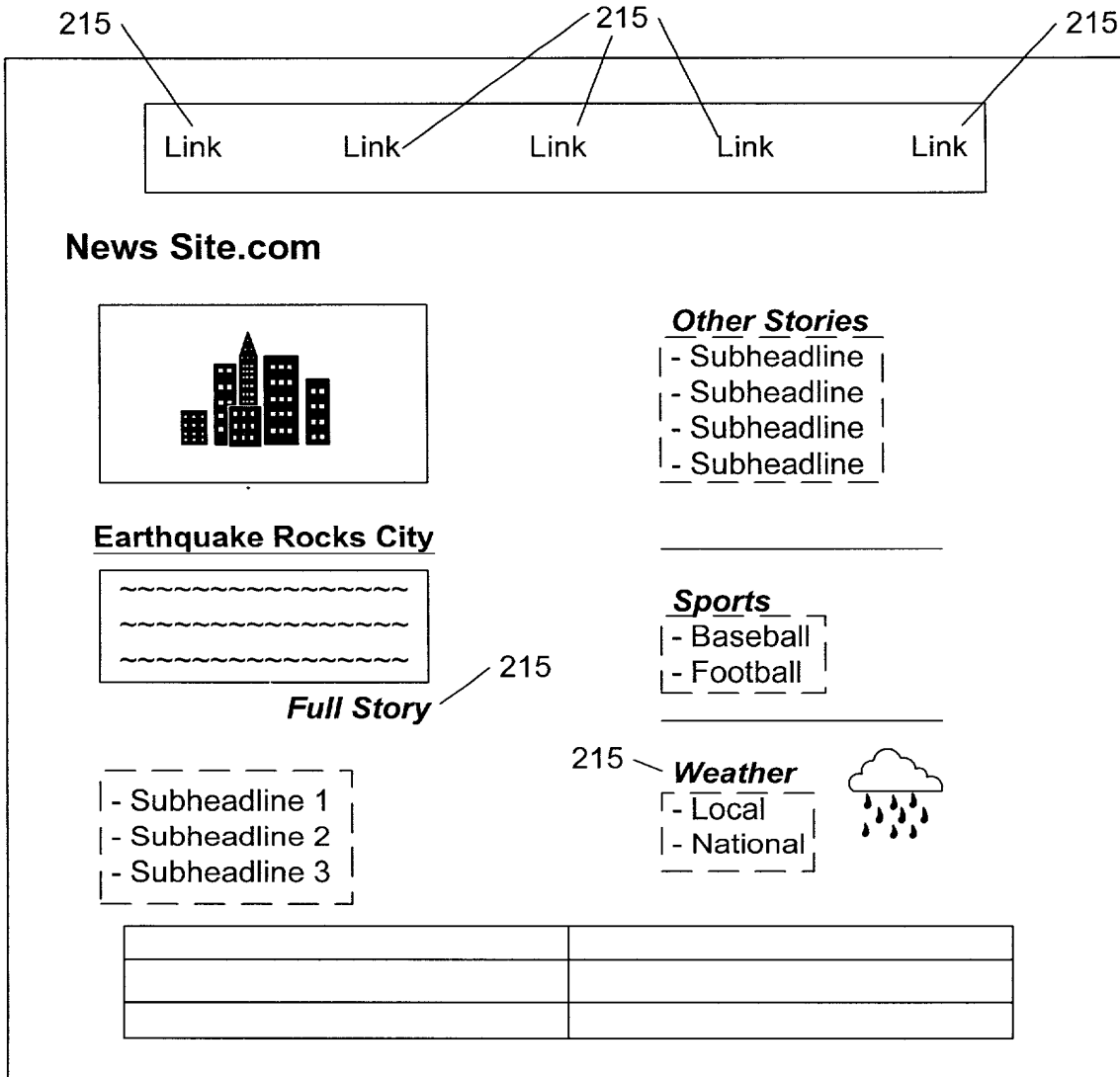- National

- Subheadline 1
- Subheadline 2
- Subheadline 3

Figure 2

Title: "Mapping and Caching of Uniform Resource
Locators for Surrogate Web Server"
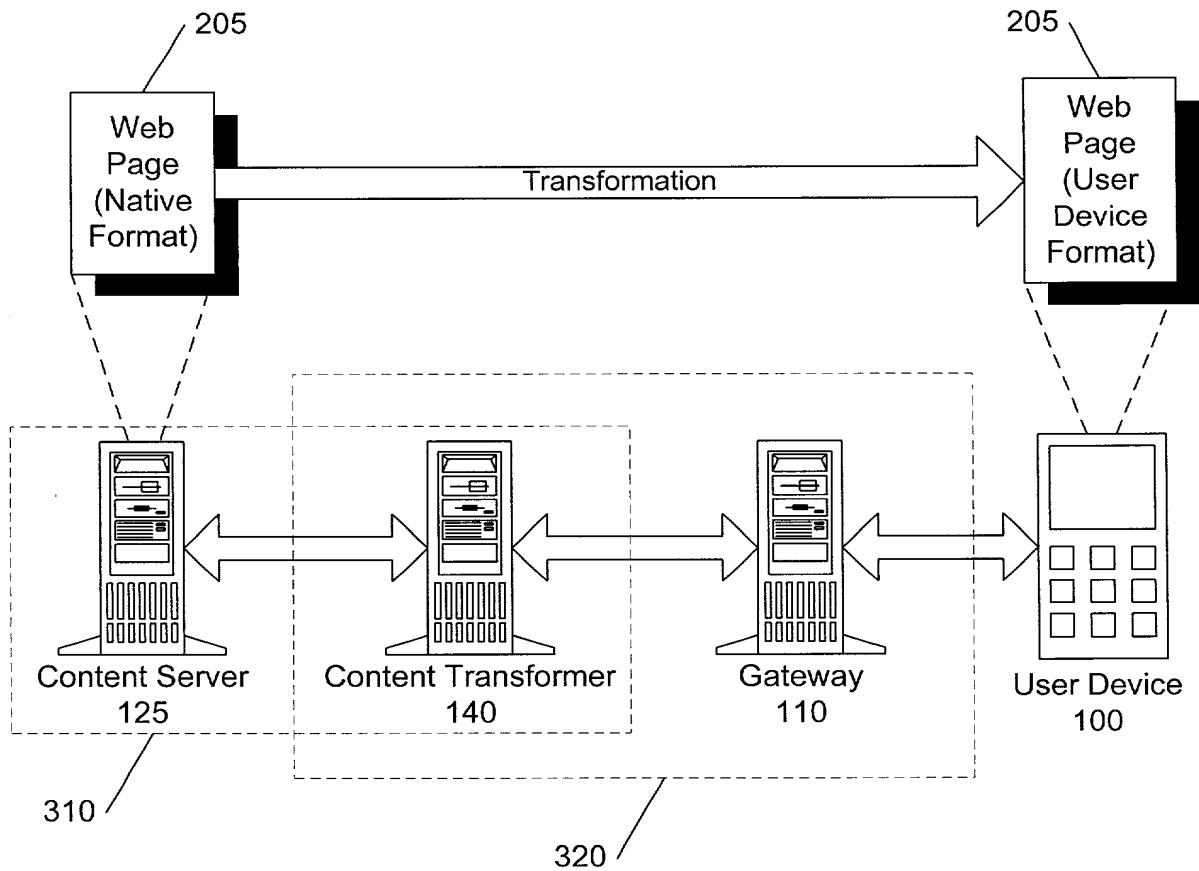Inventor: H. Fischer
Docket No.: 36584-6051

3/9

205

Web
Page
(Native
Format)

Transformation

205

Web
Page
(User
Device
Format)

Content Server
125

Content Transformer
140

Gateway
110

User Device
100

310

320

Figure 3

```
              ( Begin )
                  │
                  ▼
┌──────────────────────────────────┐
│ User device transmits request for│
│            content.              │
│                             410  │
└──────────────────────────────────┘
                  │
                  ▼
┌──────────────────────────────────┐
│   Gateway receives request for   │
│            content.              │
│                             420  │
└──────────────────────────────────┘
                  │
                  ▼
┌──────────────────────────────────┐
│  Content transformer detects user│
│   device and establishes session.│
│                             430  │
└──────────────────────────────────┘
                  │
                  ▼
┌──────────────────────────────────┐
│      Content transformer retrieves│
│   content and transforms content │
│  from native format to user device│
│             format.              │
│                             440  │
└──────────────────────────────────┘
                  │
                  ▼
┌──────────────────────────────────┐
│   Content transformer transmits  │
│     transformed content to user  │
│             device.              │
│                             450  │
└──────────────────────────────────┘
                  │
                  ▼
              (  End  )
```

Figure 4

Original Web Page
510

515

Link : URL

To
resource
location

Transformation

Transformed Web Page
520

525

Surrogate Link

To Content
Transformer

Figure 5

Title: "Mapping and Caching of Uniform Resource
Locators for Surrogate Web Server"
Inventor: H. Fischer
Docket No.: 36584-6051

6/9

```
                    ┌──────────┐
                    │  Start   │
                    └────┬─────┘
                         │
                         ▼
         ┌───────────────────────┐         ┌───────────────────────┐
         │ Receive request for   │         │ Map surrogate link    │
         │ Web page from user    │────────▶│ identifier to original│
         │ device.               │         │ URL.                  │
         │                  605  │         │                  630  │
         └───────────┬───────────┘         └───────────┬───────────┘
                     │                                 │
                     ▼                                 ▼
         ┌───────────────────────┐            ◇───────────────◇
         │ Establish session for │    Yes   ╱                   ╲
         │ user device.          │◀─────────  Additional links?  ╲
         │                  610  │          ╲       635         ╱
         └───────────┬───────────┘            ◇───────────────◇
                     │                                 │ No
                     ▼                                 ▼
         ┌───────────────────────┐         ┌───────────────────────┐
         │ Retrieve Web page.    │         │ Send transformed      │
         │                  615  │         │ Web page to user      │
         │                       │         │ device.          640  │
         └───────────┬───────────┘         └───────────┬───────────┘
                     │                                 │
                     ▼                                 ▼
         ┌───────────────────────┐               ┌──────────┐
         │ Search Web page for   │               │   End    │
         │ links.                │               └──────────┘
         │                  620  │
         └───────────┬───────────┘
                     │
                     ▼
         ┌───────────────────────┐
         │ Replace link in Web   │
         │ page with surrogate   │
         │ link.                 │
         │                  625  │
         └───────────────────────┘
```
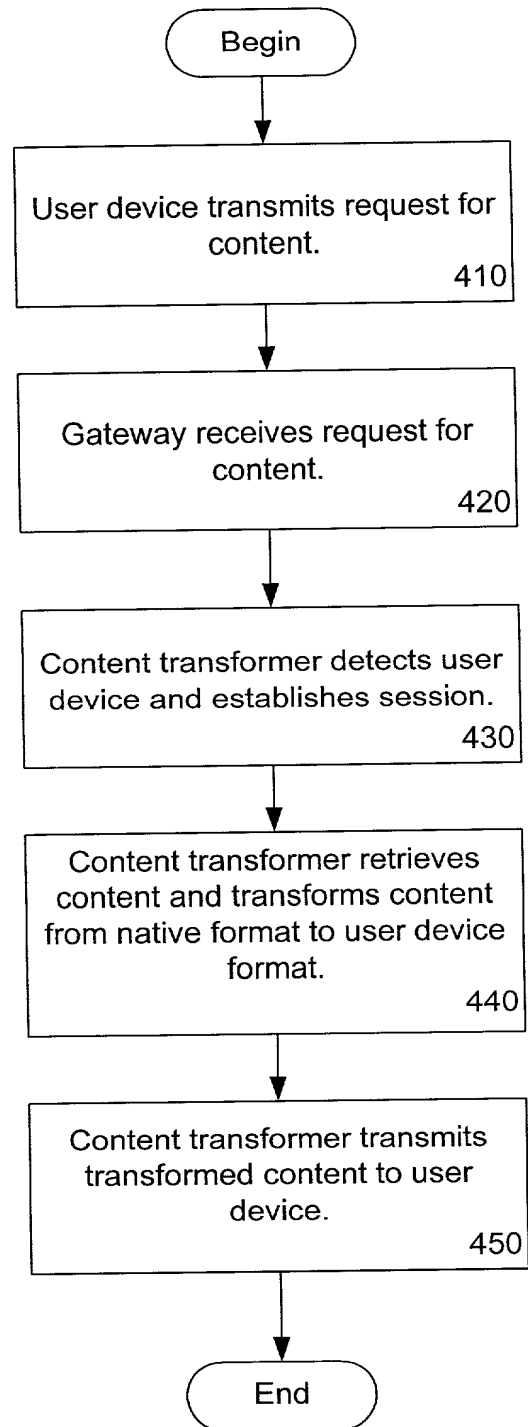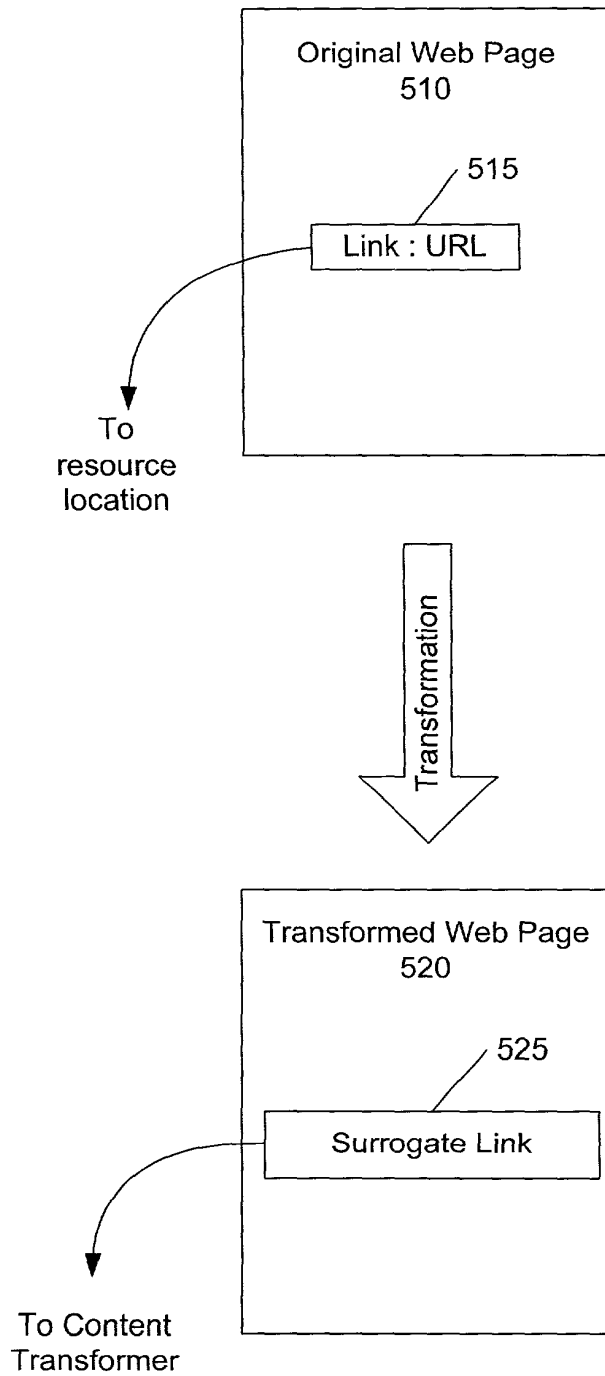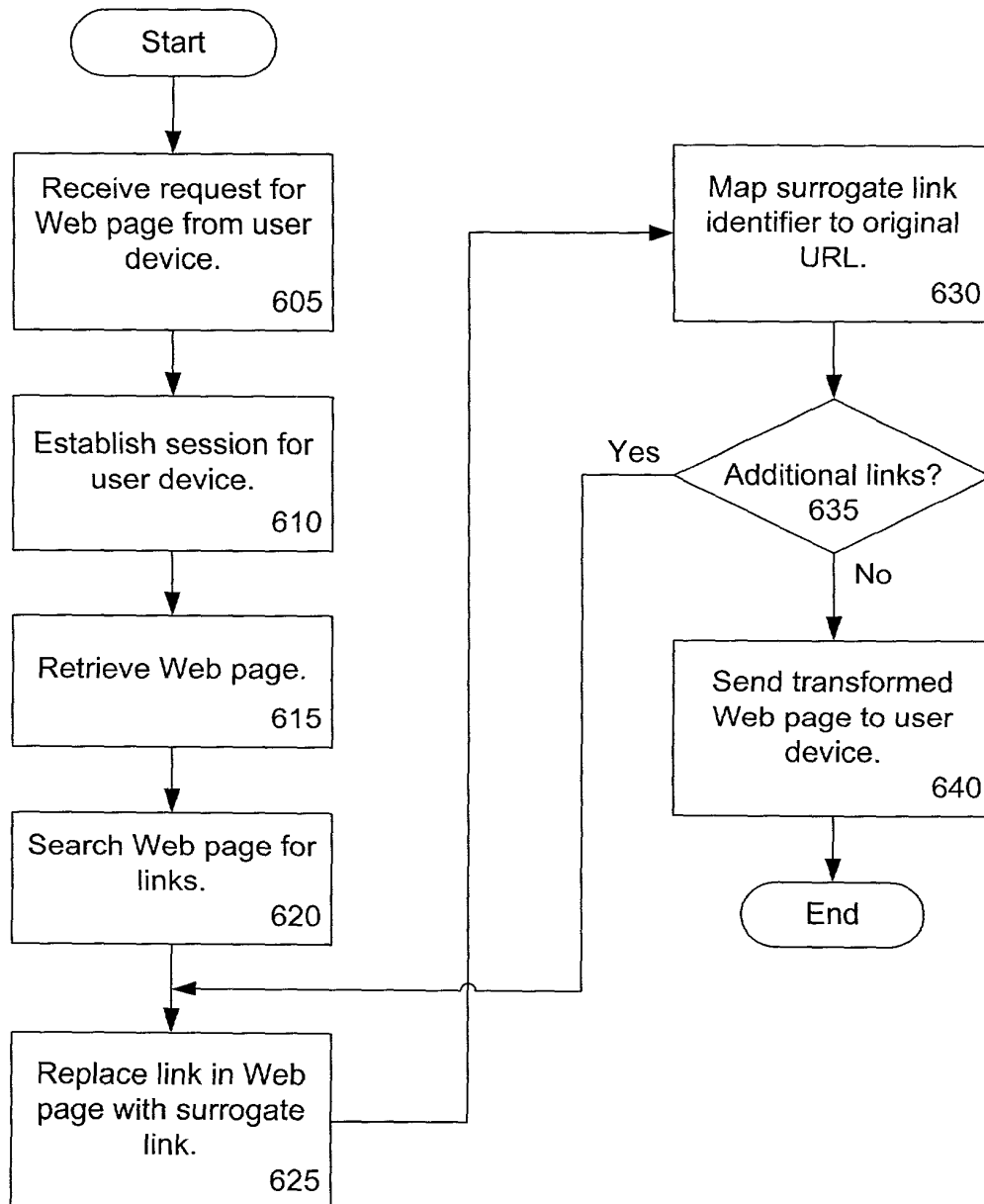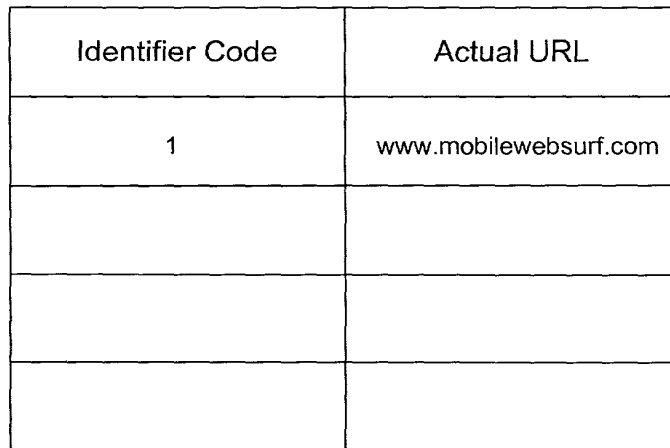
Figure 6

Title: "Mapping and Caching of Uniform Resource
Locators for Surrogate Web Server"
Inventor: H. Fischer
Docket No.: 36584-6051

7/9

710

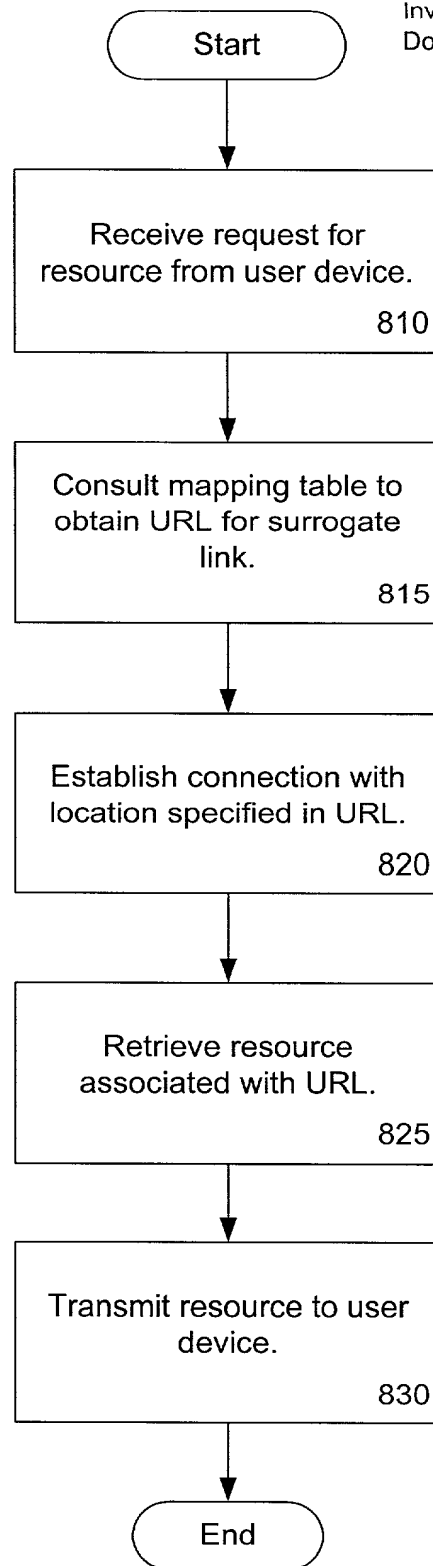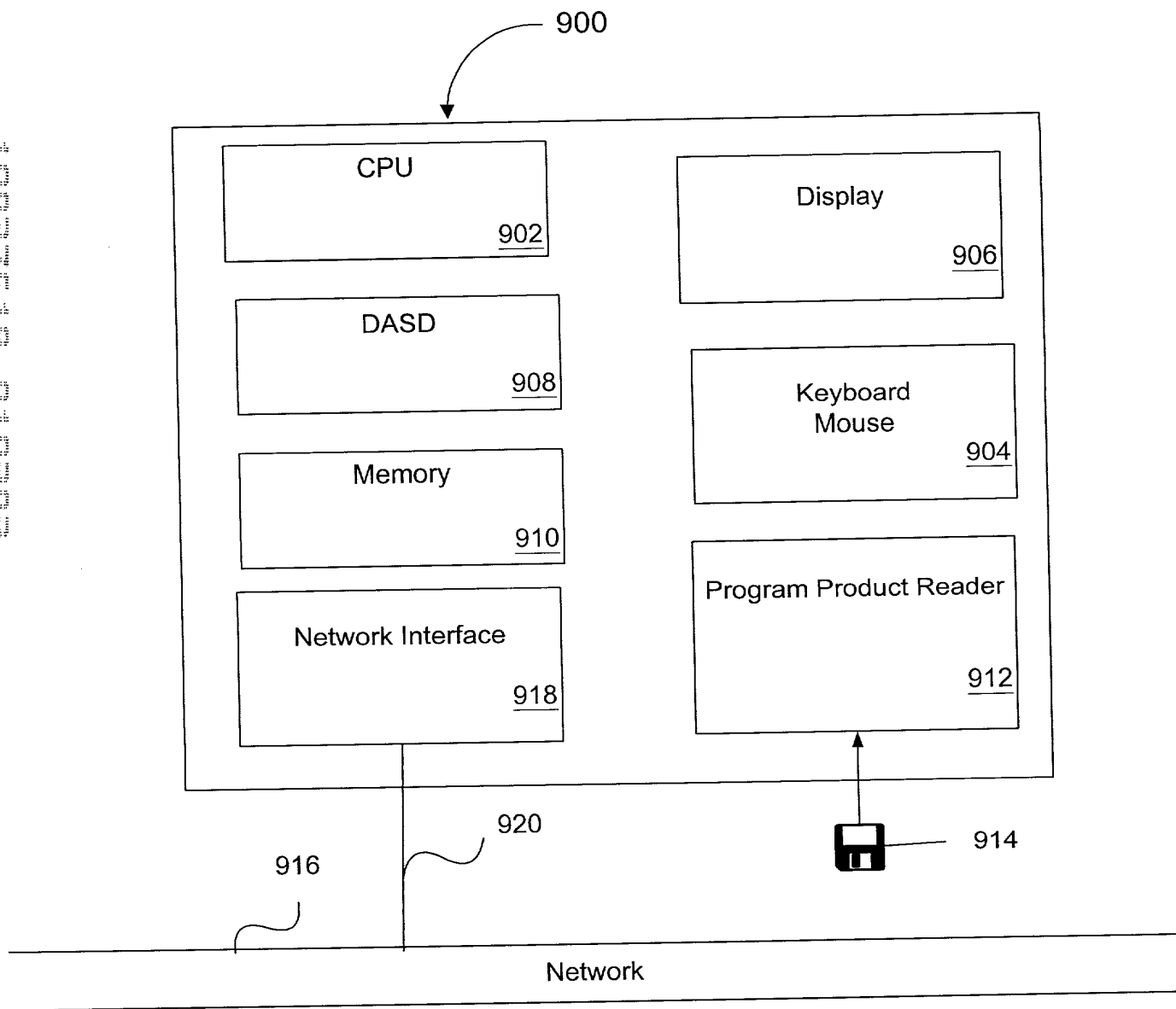| Identifier Code	Actual URL
1	www.mobilewebsurf.com

Figure 7

```
              ( Start )


        ┌──────────────────────┐
        │   Receive request for │
        │ resource from user device. │
        │                          │
        │                      810 │
        └──────────────────────┘


        ┌──────────────────────┐
        │  Consult mapping table to │
        │  obtain URL for surrogate │
        │          link.           │
        │                      815 │
        └──────────────────────┘


        ┌──────────────────────┐
        │ Establish connection with │
        │ location specified in URL. │
        │                          │
        │                      820 │
        └──────────────────────┘


        ┌──────────────────────┐
        │    Retrieve resource     │
        │   associated with URL.   │
        │                          │
        │                      825 │
        └──────────────────────┘


        ┌──────────────────────┐
        │  Transmit resource to user │
        │          device.         │
        │                          │
        │                      830 │
        └──────────────────────┘


              (  End  )
```

Figure 8

900

CPU

902

DASD

908

Memory

910

Network Interface

918

Display

906

Keyboard
Mouse

904

Program Product Reader

912

920

916

914

Network

Figure 9